



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: **Hsin-Mao Hsieh**
Serial No. **10/034,116**
Filing Date: **January 3, 2002**
For: **STATOR OF AN
ALTERNATING CURRENT
MOTOR**

Group Art Unit: 2834

Examiner:
PHAM, Leda T

Customer No.

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PATENT TRADEMARK OFFICE

Atty. Docket No. **33144-177550**

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AMENDMENT AFTER FINAL

Honorable Commissioner for Patents
Washington, D.C. 20231
Box: **Amendment After Final**

Sir:

In reply to the Final Office Action (Office Action) dated **August 21, 2002**, Applicant submits the following Reply.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are needed to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor and any other fee deficiency are hereby authorized to be charged, any overpayments credited to, our Deposit Account No. 22-0261.

REMARKS

This Application is currently under final rejections. A prompt reconsideration of this Application is therefore respectfully requested.

In the Office Action dated August 21, 2002, claims 1 and 3 are rejected under 35 U.S.C. §102(b) as being anticipated by Sun (U.S. Patent No. 6,034,461).

Applicant respectfully traverses the rejections for the reasons set forth below:

Claim Rejection under 35 U.S.C. § 102(b)

In the Office Action dated August 21, 2002, claims 1 and 3 are rejected under 35 U.S.C. §102(b) as being anticipated by Sun's U.S. Patent No. 6,034,461 (hereinafter as "Sun").

Applicant respectfully traverses the rejections.

To anticipate a claim, each and every element of the claim must be taught, either expressly or inherently, in a single prior art reference. See e.g., Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987) ("a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.")

As shown in Figure 1 of the referenced application, the stator of the present invention is composed of only a yoke (10), an upper insulator (20) and a lower insulator (21). More particularly, each element is formed as a **single body**. In contrast, Sun's stator comprises a yoke (30), an upper insulator and a lower insulator, but each element is composed of **two parts** as shown in Figure 4 of the cited reference. The yoke (30) is made up of a **first lamination (31)** and a **second lamination (32)**. The upper insulator is composed of a **first plate (216a)** and a

second plate (216c). The lower insulator is composed of **a third plate (216b) and a fourth plate (216d).** Thus, Sun fails to teach a “single-body” yoke, a “single-body” upper insulator and a “single-body” lower insulator as described in the present claimed invention. This is particularly evident by Sun’s requirement of a “two-part” yoke, a “two-part” upper insulator and a “two-part” lower insulator for its assembly, which is described as follows: First, the first plate 216a of Sun’s stator and the third plate 216b are respectively mounted on upper and lower ends of the first lamination 31, then wires are wound on the first neck portion 310 to form a coil 20a (column 3, lines 33-36, Figure 9). The same operation is repeated for the assemblage of the second plate 216c, the fourth plate 216d and the second lamination 32 (column 4, lines 2-5). Then “[t]hese two laminations wounded with coils are assembled.” (column 2, lines 46-47).

If the two laminations and the four plates are first assembled so as to form an “integral” yoke, an “integral” upper insulator and an “integral” lower insulator (here “integral” means “as a unit” like the Examiner explains), subsequent installation of the coils to the pre-assembled stator becomes intricate. This is due to that the assembled stator has no cut-outs/openings defined on the outer periphery of the yoke and the insulators to allow the passage of the wires (Figures 2, 5 and 10). As a result, the wires cannot be easily wound around for the formation of the coils and the pre-assembled Sun’s stator provides no advantage over the prior art which is discussed in Sun’s own disclosure (column 1, lines 56-57). This further confirms that Sun’s stator must have the aforementioned “two-part” elements.

In short, Sun not only fails to teach, but also teaches away from a “single-body” yoke, a “single-body” upper insulator and a “single-body” lower insulator of the referenced application.

Furthermore, one important point worthy of emphasizing is that the main objective of the referenced application is to simplify the assembling process of a stator. As shown in Figure 1 of the referenced application, the upper insulator 20 and the lower insulator 21 are respectively defined with a pair of openings 204, 214, and the yoke 10 is defined with a pair of symmetrical cut-outs 14. The openings 204, 214 and the cut-outs 14 are designed for the coil winding process. As shown in Figures 1 and 2, the upper and lower insulators 20, 21 are first assembled on the upper and lower ends of the yoke 10, respectively. Then the wires can **pass through the openings 204, 214 and cut-outs 14** into the passages formed by the joint edges 207, 217 to **form the stator coils 40** which are wound around and bind the upper and lower insulators 20, 21 together with the yoke 10.

Moreover, the stators of the present invention and the cited reference further differ in that the **two cut-outs 14** as defined in claim 1 of the present invention **directly communicate with the corresponding winding slots 13**. As previously described and shown in Figures 5 and 10 of the cited reference, Sun's stator has **no cut-outs defined at the outer periphery of the yoke** once the first lamination 31 and the second lamination 32 are joined together to form a complete yoke. Also, the **openings 317** formed by the dovetailed trenches 316, 326 (Figures 4 and 5) **do not communicate with the winding slots**. For the same reason, Applicant disagrees with the Examiner in that, in the Office Action, the Examiner erroneously equates the openings 317 of Sun's stator to the cut-outs 14 of the referenced application. The openings 317 are for the engagement of the two laminations 31 and 32 and are completely different from the cut-outs 14 of the present invention.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance, and early action in accordance thereof is requested. In the event there is any reason why the application cannot be allowed in this current condition, it is respectfully requested that the Examiner contact the undersigned at the number listed below to resolve any problems by Interview or Examiner's Amendment.

Respectfully submitted,



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Date: November 15, 2002

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doc# 415808